**Porella arboris-vitae**  
Bitter Scalewort

Identification  
Dry shoots of *P. arboris-vitae* have the leaves lying appressed to each other and curved down, giving them a smoother appearance than other *Porella* species. Indeed, leaves near the shoot tips sometimes curve down so much that the tips appear almost tubular. The size (shoots 1.5–4 mm wide, with leaves up to 1.7 mm wide and 2 mm long) and dark green colour are typical of *Porella*, although *P. arboris-vitae* is often browner and glossier than the others. Two features are diagnostic: the lobules and underleaves on the underside of the shoot are toothed, and the plants taste very hot and peppery/bitter when nibbled on the tip of the tongue (nibble just a few millimetres from the shoot tip).

Similar species  
The other four British *Porella* species have rougher shoots when dry, thanks to the curled-up leaf edge, and only *P. obtusata* (p. 209) has toothed lobules. The bitter taste is an instant way of recognizing *P. arboris-vitae* if in doubt. Very large plants of *Frullania tamarisci* (p. 211) or *F. teneriffae* (p. 212) may look similarly smooth and glossy, but have notched, untoothed underleaves, and are not bitter to taste.

Habitat  
*P. arboris-vitae* favours similar habitats to *P. platyphylla*, but is usually much less abundant. It is commonest on base-rich rock in upland districts, where it grows on sheltered crags, on boulders and, especially, in ravines. Occasionally it grows on ash (*Fraxinus excelsior*) or hazel (*Corylus avellana*) in humid western woodlands. Lowland colonies are in rocky limestone woodland or in north-facing chalk grassland.